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SEP 12 2006REMARKS

Claims 2, 8, and 13 were previously cancelled. In this Response, Applicant does not amend or cancel any claim. Claim 18 is added. Support for the new claim can be found, for example, in paragraph 20 of the specification. Claims 1, 3-7, 9-12, and 14-17 remain in the Application. Reconsideration of the pending claims is respectfully requested in view of the following remarks.

I. Claims Rejections Under 35 U.S.C. §103(a)

Claims 1, 3-7, 9-12, and 14-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,682,273 issued to Hetzler ("*Hetzler*") in view of U.S. Patent No. 5,636,355 issued to Ramakrishnan et al. ("*Ramakrishnan*"). Applicant respectfully traverses the rejection.

To establish a *prima facie* case of obviousness, the relied upon references must teach or suggest every limitation of the claim such that the invention as a whole would have been obvious at the time the invention was made to one skilled in the art.

With respect to independent claim 1, claim 1 recites the elements of:

"a system detecting an occurrence of a predetermined event, wherein the predetermined even is a cache of the hard disk reaching a predetermined level of dirty data, the predetermined level is to be reached before the cache of the hard disk is full of dirty data; and
in response to detecting the event, spinning up a hard disk of the system prior to a request to exchange data with the hard disk."

Applicant submits that *Hetzler* in view of *Ramakrishnan* does not teach or suggest these elements.

Hetzler discloses a disk drive that enters and exits a power-save mode based on a history of access patterns, i.e., the history of requests to read or write data and/or move the actuator (col. 2, lines 31-33). *Hetzler* also discloses that the disk drive exits the power-save mode when a disk drive access occurs or when a periodic access pattern has been detected (col. 12, lines 58-65). Neither a disk drive access nor a periodic access pattern is the predetermined event as claimed. *Hetzler* does not disclose any other situation in which a disk

drive is spun up. Thus, *Hetzler* at least does not disclose spinning up a hard disk in response to detecting the predetermined event as recited in claim 1.

Ramakrishnan does not cure this deficiency. The Examiner relies on *Ramakrishnan* for disclosing the predetermined event. However, *Ramakrishnan* also does not disclose spinning up a hard disk in response to detecting the predetermined event. Rather, *Ramakrishnan* discloses that the cache content is purged in response to detecting the event. The purging operation is performed when the hard disk is not busy with request commands (Abstract). *Ramakrishnan* does not teach or suggest spinning up or down a hard disk in connection with the cache purging operations. Thus, *Ramakrishnan* also does not teach or suggest spinning up a hard disk in response to detecting the predetermined event.

Further, *Hetzler* discloses monitoring a specific form of disk access pattern (e.g., periodic pattern) to predict future disk accesses. *Ramakrishnan*, on the other hand, discloses managing the cache to determine when a disk access should occur. *Ramakrishnan* discloses that the cache management technique aims at reducing the number of disk accesses (Abstract). The reduction of disk accesses is achieved by consolidating multiple write requests into a purge operation, which is performed when the hard disk is not busy. The cited references do not teach or suggest that the cache purging operations present any specific pattern that may be used for disk access predictions. Thus, the device of *Hetzler* would not be able to extract any access pattern from the purging operations and would not be able to predict future disk accesses based on the access pattern. Thus, combining *Ramakrishnan* with *Hetzler* would not produce a device that operates as intended by *Hetzler*.

Moreover, the purging operations disclosed by *Ramakrishnan* are performed in response to purging requests (col. 5, lines 65-67). A purging request is the access request mentioned in *Hetzler*. Thus, if *Hetzler* and *Ramakrishnan* were to be combined, one of ordinary skill in the art would produce a hard disk that is activated in response to a purging request, instead of prior to the purging request. Thus, combining *Hetzler* with *Ramakrishnan* would not have produced the claimed "in response to the detected event...prior to a request to exchange data with the hard disk."

Dependent claims 3-6, 9-11 and 14-17 depend from claims 1, 7 and 12, respectively, and incorporate the limitations thereof. For at least the reasons stated above, claims 3-6, 9-11 and 14-17 are patentable over the cited prior art.

Moreover, each of these dependent claims recites additional patentable features. Claims 4-6, 10-11, and 15-17 include additional features of the predetermined events which are not disclosed by the cited references. The cited passage of *Heizler* merely describes an interface controller, but fails to mention under what situation the hard disk would be spun up. The Examiner has not identified and Applicant has been unable to discern any part of cited references that teaches or suggests the claimed events in connection with spinning up the hard disk. Thus, these dependent claims are non-obvious over the cited references for this additional reason.

Accordingly, reconsideration and withdrawal of the §103 rejections of claims 1, 3-7, 9-12, and 14-17 are respectfully requested.

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CONCLUSION


In view of the foregoing, it is believed that all claims now are now in condition for allowance and such action is earnestly solicited at the earliest possible date. If there are any additional fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666.

Respectfully submitted,

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Date:

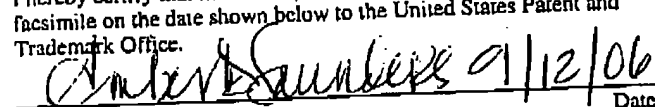
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